# COLOUR

**FOCUS**

In

Once you get into the realm of graphic design, colour selection and representation becomes a complex and technical art.

Click here to see part two of this document

**In this session you will:**

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# UNDERSTANDING COLOUR TERMINOLOGY

There are many ways to **represent colour**. The methods you use to represent colour in an InDesign document will vary depending upon factors such as whether the job will be printed or displayed as a PDF, what your printing budget is, what technology you'll be using to print and so on. This page explains some of the colour concepts you'll need to understand.

## Process Colours

Process printing, also known as four-colour offset printing and the CMYK system, uses a blend of four colours to achieve colour printing. The process colours are **C**yan, **M**agenta, **Y**ellow and Blac**k**, where **K** also stands for **K**ey. In many professional printing jobs, such as those created in InDesign, colours are specified as a percentage blend of these colours. In the printing process, a film is created for each colour and then used to create four printing plates, making four-colour offset printing quite an expensive process. However, CMYK achieves the best results.

## Spot Colours

A cheaper way to achieve a high-quality colour print job is to use spot colours. Spot colours are pre-mixed colours which are made up of the colours cyan, magenta, yellow and black. In InDesign, they are shown as CMYK colours. In the printing process, only a film for the spot colour and maybe black would be required.

The Pantone Matching System is the most commonly used selection of pre-mixed spot colours. To get an accurate result, they provide samples of pre-mixed colours to select from.

Spot colours can be used to create several 'colours' by the process of tinting or reducing the amount of colour printed in an area. A colour printed at 100% colour will be more intense than the same colour at 50% colour or at 15% colour. For example, with black:

*100%*  *50%*  *15%*

## Lab Colours

A less frequently used option is **Lab** colour. Colours are determined by their percentage lightness (**L**), where L=100 is white and L=0 is black, as well as a position between magenta and green (**a**) and yellow and blue (**b**). Positive **a** and **b** values indicate magenta and yellow respectively, while negative values indicate green and blue respectively.

## RGB

Where the final product is to be viewed on screen, such as in a PDF or on a website, the colours chosen are based on **R**ed, **G**reen and **B**lue values. This is because instead of mixing colours to achieve new colours, a computer screen mixes red, green and blue light to achieve different colours. RGB colours should not be used for printing documents because the colour shown on the screen is unlikely to match the desired printed colour. It is very important to check the printed proof copy to ensure that the colours are what you expected and wanted.

## Colour Gamut

The reason that different colouring systems give different results is because the colours are created in different ways – mixes of colours, mixes of light or mixes of position in a spectrum. While the human eye is capable of distinguishing a wide range of colours, only a subset of these colours can be reproduced by modern equipment. The range of colours produced by a specific item of equipment such as a printer is known as the colour gamut.

## Gradients

A gradient is a graduated blend between two colours or two tints. For instance, a gradient of white and black would look like this:

# CREATING AND ADDING PROCESS COLOURS

*Process colours* are a mix of cyan, magenta, yellow and black. When you plan to print in these four colours, you can use any blend of the colours to achieve the colour that you want.

Once you have created a process colour, you can add it to the *Swatches* panel so that it can be applied to objects in your document.
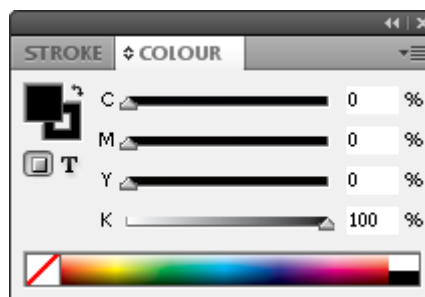
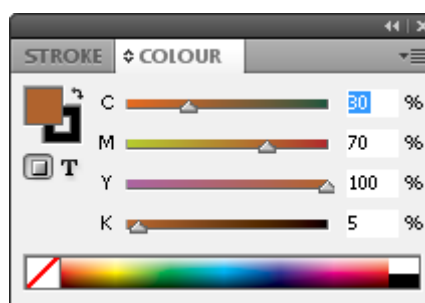## Try This Yourself:

**Open File**

*Before starting this exercise you MUST open the file N058 Colour_1.indd...*

**1** Ensure that no object is selected, then select **Window** > **Colour** to display the *Colour* panel

**2** Click on the *Fill* ▇ icon, then click on the menu button ▭ and select **CMYK** to display the CMYK version of the colour

**3** Click on *%* for *C* and type **30**

**4** Press [Tab] and type **70** for *M*

**5** Press [Tab] and type **100** for *Y*

**6** Press [Tab] and type **5** for *K*, then press [Tab] to see the result

*It should resemble coffee. Let's add it to the Swatches panel...*

**7** Click on the panel menu button ▭ and select **Add to Swatches**

**8** Select **Window** > **Swatches**, then scroll to the bottom of the panel to see the new colour

**2**

**6**

**8**

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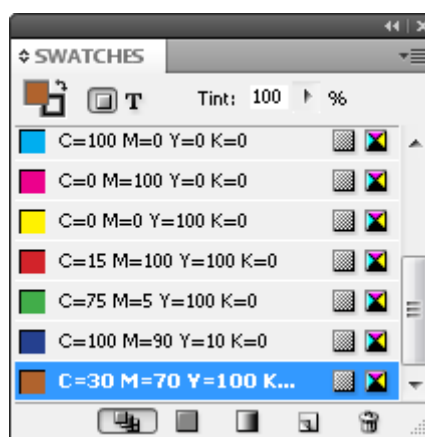### For Your Reference…

To *create* a *process colour*:

1. In the *Colour* panel, click on the menu button, select *CMYK*, then type a value for each of the four colours, or drag the sliders

To *add* a *colour* to the *Swatches* panel:

1. Click on the menu button and select **Add to Swatches**

### Handy to Know…

- Remember that the colour you see on the screen is an RGB representation of your CMYK colour. As a result, the colour of the final printed copy will probably vary from what you see.

# CREATING SPOT COLOURS

**Spot colours** are CMYK-based colours that have been nominated for printing as a pre-mixed ink, rather than being created during printing by mixing cyan, magenta, yellow and black. Often these colours are selected from a standard colour library such as Pantone. This is important for printed jobs because the screen colour can only approximate the actual colour printed on paper.
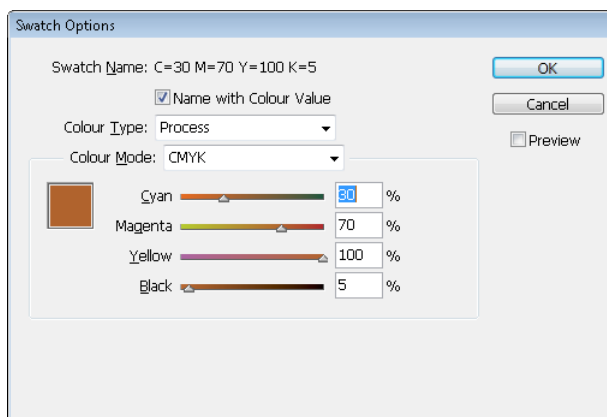
## Try This Yourself:

*Same File*
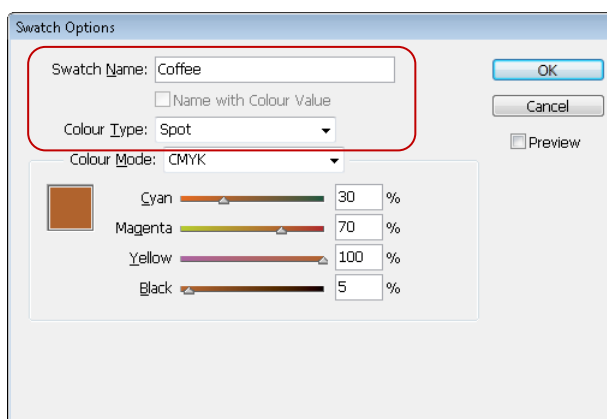
*Continue using the previous file with this exercise...*

**1** Double-click on the new coffee colour in the **Swatches** panel to display the **Swatch Options** dialog box

**2** Click on the drop arrow ▾ for **Colour Type** and click on **Spot**

**3** Type **Coffee** in **Swatch Name**

**4** Click on **[OK]** to create the new spot colour

*The name and icon ◉ in the Swatches panel, show that this is now a spot colour rather than a process colour. For the purposes of the case study, it is not necessary to change it to a spot colour, but this exercise demonstrates how it is done*
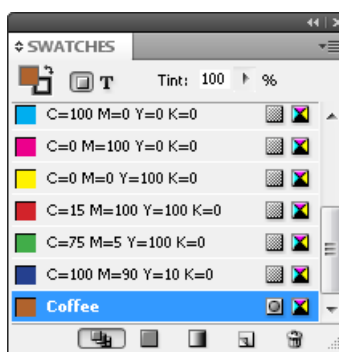
## For Your Reference…

To **create** a **spot colour**:

1. Double-click on the colour in the **Swatches** panel
2. Click on the drop arrow ▾ for **Colour Type** and click on **Spot**
3. Type a **Swatch Name** and click on **[OK]**

## Handy to Know…

- You will find that there are variations in printing even when you use a single spot colour. The resulting printed colour will vary depending upon the surface on which it is printed. Matte (smooth, non-glossy), coated (smooth, glossy) and uncoated (rough) paper are the usual options.

# APPLYING A FILL COLOUR

Many objects in InDesign consist of a ***stroke and fill***. The fill is the area inside the stroke (outline), so the fill may be inside a frame, within a drawing, or the area inside lettering. Colour can be applied to a fill in much the same way as colour can be applied to a stroke. The colour must reside on the ***Swatches*** panel before it can be used.
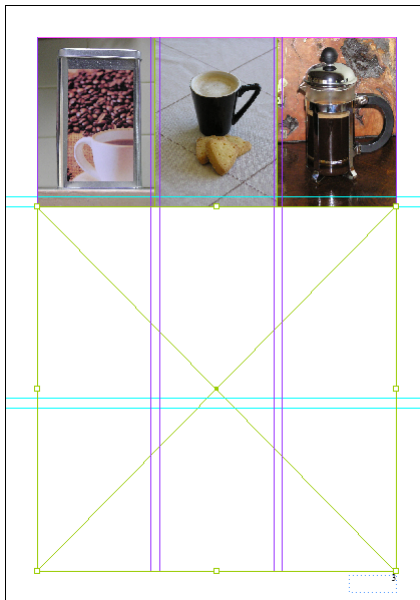
## Try This Yourself:

*Same File*

Continue using the previous file with this exercise...

**1** Navigate to page **3**, then press Ctrl + 0 to see the entire page

**2** Click on the **Rectangle Frame** tool, then draw a frame entirely across rows **2** and **3**

**3** Click on the **Fill** icon in the **Swatches** panel to ensure it appears in front of the **Stroke** icon

**4** Click on the colour **Coffee** in the **Swatches** panel to apply the colour to the frame
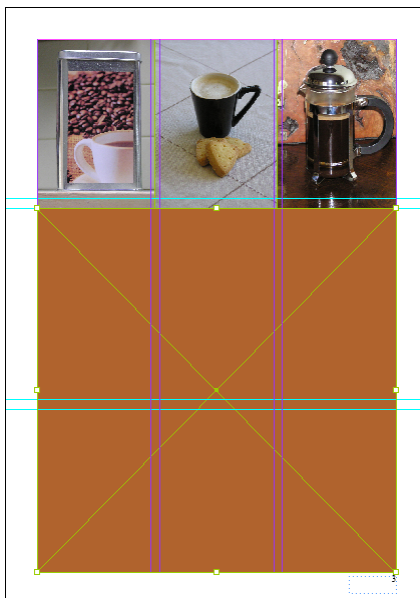
*The rectangular frame should fill with the colour.*

*All colour is applied this way – that is, by selecting the object, selecting either fill or stroke and then clicking on the colour*

**2**

**4**

## For Your Reference…

To ***apply*** a ***colour***:

1. Click on the object to select it
2. Click on the **Fill** icon in the **Swatches** panel
3. Click on the colour that you want to apply

## Handy to Know…

- You can apply a fill colour to several objects at once, by selecting the objects first and then applying the colour. To select multiple objects either drag the mouse to lasso them with the **Selection** tool or click on the first object, hold down Shift and click on the other objects.